

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

Fortin, Vincent; Tsai, Kuei-Chang

Assignee:

Mosel Vitelic, Inc.

Title:

Cobalt Silicide Fabrication Methods That Use Protective Titanium

Layers

Application No.:

10/056,154

Filing Date:

January 23, 2002

Examiner:

Lee, Hsien Ming

Group Art Unit:

2823

Docket No.:

M-12524 US

Confirmation No.:

2279

San Jose, California March 2003

BOX RCE COMMISSIONER FOR PATENTS Washington, D.C. 20231

AMENDMENT

Sir:

Responsive to the Office Action mailed 4 December 2002, please amend the above patent application in the following manner.

IN THE SPECIFICATION

Amend paragraph 0021, 0038, and 0042 to read as follows:

RONALD J. MEETIN Attorney at Law 210 Central Avenue Mountain View, CA 94043-4869

Tel: 650-964-9767 Fax: 650-964-9779

 $\widehat{\mathcal{P}}$

[0021] Then titanium layer 130 is deposited by ionized PVD. In some embodiments, the titanium is deposited *in-situ*, without breaking the vacuum after the cobalt deposition and without unloading the wafer from the Endura cluster tool, and the deposition is performed in a medium throw magnetron IMP (ion metal plasma) chamber 410 (Fig. 4) of type Vectra available as part of the Endura tool. Titanium target 420 is shown mounted at the top of chamber 410. Target 420 is connected to a negative DC bias source 430. Wafer 102 is placed on a metallic pedestal 440. Bias source 450 biases the pedestal with an AC current of a

Application No. 10/056,154